

DOCKET NO.: CHEM0021US/ISIS-5799
Application No.: 10/561,324
Office Action Dated: August 5, 2008

PATENT

REMARKS

Following entry of the foregoing amendments, claims 1 to 3, 5 to 7, 9, 14, 20 to 22, 26, 30, 39 to 44, 49, 50, and 53 to 56 will be pending in this patent application. Claims 1 to 3, 26, 30, and 54 to 56 have been amended, herein, without prejudice. No new claims have been added and no claim have been canceled. Support for the amendments is found throughout the specification as originally filed, and the amendments thus do not introduce new matter into the application.

Applicants respectfully request reconsideration of the rejections of record in view of the foregoing amendments and the following remarks.

Alleged Obviousness

Claims 1 to 3, 5 to 7, 9, 14, 20 to 22, 26, 30, 39 to 44, 49, 50, and 54 to 56 have been rejected under 35 U.S.C. § 103(a) as allegedly rendered obvious by published U.S. patent application number 2003/143732 (“the Fosnaugh application”). Applicants respectfully request reconsideration and withdrawal of this rejection because the claimed compositions would not have been obvious to those of ordinary skill in the art at the time of the invention in light of the teachings provided in the Fosnaugh application.

To establish *prima facie* obviousness, the Patent Office must demonstrate that the cited document or combination of documents teaches or suggests all the recitations of the claims.¹ The Patent Office must also identify “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”² In other words, the Office must identify “an apparent reason to combine the known elements *in the fashion claimed by the patent at issue*. To facilitate review, this analysis should be made explicit.”³

¹ *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

² *KSR Int'l Co. v. Teleflex*, 127 S.Ct. 1727, 1741 (2007).

³ *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (emphasis added)(citing *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006)).

Claim 1 as amended herein recites compositions comprising first and second chemically synthesized oligomeric compounds in which at least one of the first and second oligomeric compounds comprises a plurality of nucleosides linked by internucleoside linking groups. Each of the nucleosides has a 2' group that is other than 2'-OH and has 3'-endo conformational geometry, and at least one of the nucleosides is a 2'-fluoro modified nucleoside comprising a purine heterocyclic base. The Fosnaugh application fails to teach or suggest such oligomeric compounds.

For example, the Fosnaugh application provides generalized teachings regarding chemical modification of RNA. The application provides a broad list of possible chemical modifications for oligomeric compounds and states that such modifications can be incorporated into siRNA molecules. A generalized teaching of this nature, however, would not have rendered obvious to those of ordinary skill in the art all of the possible, specific motifs that fall within the teachings. Moreover, although the Fosnaugh application describes a limited number of specific, modified oligonucleotides, the pattern of modifications present in the described oligonucleotides differs from that claimed. Significantly, the Fosnaugh application fails to describe or suggest oligomeric compounds in which *each* of the nucleosides bears a chemical modification, much less oligomeric compounds in which each of the nucleosides has 3'-endo conformational geometry, as claimed.

The Fosnaugh application thus fails to describe or suggest compositions comprising first and second oligomeric compounds in which each of the nucleosides of least one of the oligomeric compounds has a 2' group that is other than 2'-OH and has 3'-endo conformational geometry, and at least one of the nucleosides is a 2'-fluoro modified nucleoside comprising a purine heterocyclic base. Those of ordinary skill in the art therefore would have had no reason before applicants' invention to design and produce such oligomeric compounds, particularly in light of the limited guidance provided in the Fosnaugh application regarding the specific type, number, and positioning of chemical modifications that would confer advantageous properties to oligomeric compounds bearing the modifications. The claimed oligomeric compounds therefore

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would not have been obvious to those of ordinary skill in the art before applicant's invention, and applicants accordingly, respectfully, request withdrawal of the rejection.

Conclusion

Applicants believe that the foregoing constitutes a complete and full response to the official action of record. Accordingly, an early and favorable action is respectfully requested.

Respectfully submitted,

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